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DO STRESS ECHOCARDIOGRAPHY RESULTS ADD INCREMENTAL PROGNOSTIC VALUE IN PATIENTS WITH ANGIOGRAPHICALLY SIGNIFICANT CORONARY ARTERY DISEASE?

ACC Oral Contributions
Ernest N. Morial Convention Center, Room 245
Monday, April 04, 2011, 2:15 p.m.-2:30 p.m.

Session Title: Echocardiography: Current and Future Applications
Abstract Category: 33. Stress Echocardiography
Presentation Number: 915-4

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Background: Stress echo (SEcho) is established modality for diagnosis and risk stratification of coronary disease (CAD). The purpose of this study was to examine the prognostic value of SEcho in patients with angiographic significant CAD.

Methods: We evaluated 260 patients (63 ± 10 yrs; 58% male) with CAD (≥70% coronary stenosis; 55% multivessel) undergoing SEcho (33% treadmill, 67% dobutamine) and angiography within 3 months and without intervening coronary revascularization. The left ventricle was divided into 16 segments and scored on 5-point scale wall motion. Abnormal SEcho was defined as stress-induced ischemia (wall-motion score of ≥1 grade). Followup (3.1 ± 1.2 yrs) for non-fatal myocardial infarction (n = 23) and cardiac death (n = 6) obtained.

Results: In patients with angiographic CAD, SEcho effectively risk stratified normal (n = 91) vs abnormal (n = 169) groups for cardiac events (1.0%/yr vs. 4.9%/yr; p = 0.01). Multivariate logistic regression analysis identified stress-induced ischemia as the strongest predictor of cardiac events (RR 5.3, 95% CI 1.5 - 17.8, p = 0.007). Cox proportional hazard model for cardiac events showed small, significant incremental value of SEcho over angiography (p = 0.02) and highest Global chi2 for both (p = 0.004)[graph].

Conclusions: In patients with angiographic significant CAD, SEcho results added significant incremental prognostic value to angiography results. SEcho and angiography together provided complementary data with highest Global chi2 value.